

against the walls of the cell, the larva travels towards the operculum in the same way that an ear of rye, by the aid of its spiny beards, can travel over a piece of cloth which is set in vibration." The comparison employed by M. de Saussure is quite correct; but the spines are not, properly speaking, upon the abdomen; they are situated on the cerci, which have the form of two large mamillæ. Moreover the legs are covered with strong spines, which likewise assist the young larvæ to travel in their alveolus. The larvæ of the upper part of the case are the first to issue, although these eggs were the last laid. Sometimes the lid of the cell closes again before the larva has completely issued and it perishes. Those which succeed in quitting the ootheca, instead of falling to the ground, are sustained in the air by the aid of two very long and very slender silky threads, fixed on the one hand to the extremity of each of the cerci, and on the other adherent to the inner and posterior wall of the shell of the egg. Very soon all the little larvæ thus suspended from the ootheca form a sort of bunch. They remain for some days in this state; and when the first moult has taken place, their cast skins remain suspended from the ootheca.

If these young larvæ were to fall to the ground in such a feeble state, they would become the prey of their enemies. After the moult they manifest their voracity by falling upon the small insects they meet with, and they are very active.

The silky threads which sustain these young larvæ have been regarded as the representatives of the cerci; but in the larvæ contained within the egg the cerci already exist, and are formed, as I have already indicated, by two short rods covered with spines.

It often happens that, in order to change the skin, the larvæ of these insects are obliged to attach themselves to the branches by means of filaments. These long silky threads seem to have no other purpose but to enable the larva to effect its first moult secure from all dangers.—*Comptes Rendus*, July 11, 1881, p. 94.

Observations on Cladocoryne floccosa.

By M. DUPLESSIS.

M. Duplessis's memoir on *Cladocoryne floccosa* (Bull. Soc. Vaud. des Sci. Nat. 2^e sér. tome xvii. pp. 108–118) furnishes us with complete information upon a curious type of Hydroids which is the sole representative of a distinct family. The distribution of the tentacles, their dichotomous branching, and their knobbed terminations would seem to bring *Cladocoryne* into the family Cladonemidæ or into that of the Clavatellidæ. But in both these families the polypes produce Medusæ, while the genus *Cladocoryne* is larviparous. It approaches the family Corynidæ by the constitution of its genital capsules and by the arrangement and form of its tentacles; but it is the only larviparous genus in which the latter organs are branched. Unless we were to modify the diagnosis of the Corynidæ we must therefore form a family Cladocorynidæ, including the

single genus *Cladocoryne*, to which two species belong—namely *Cladocoryne floccosa*, Rotch, from the Mediterranean and Atlantic, and *C. pelagica*, Allm., which has hitherto been found only in the Atlantic. This second species, instead of being littoral and from the bottom, has, as its name indicates, a pelagic existence. M. Duplessis thinks that perhaps we ought to approximate to the latter another pelagic form described as a new genus by F. E. Schultze from specimens collected at Trieste upon Fuci.—*Bibl. Univ., Arch. des Sci. Physiques et Nat.*, July 15, 1881, p. 98.

*Observations on the Structure of Dictyophyton and its Affinities
with certain Sponges.* By R. P. WHITFIELD.

In the Chemung group of New York and in the Waverley beds of Ohio and elsewhere there occurs a group of fossil bodies which have been described under the name *Dictyophyton*, but the nature of which, I think, has not been properly understood. In the 'Sixteenth Report on the State Cabinet of Natural History of New York,' p. 84, in the remarks preceding the generic description, they are referred to the vegetable kingdom, with the opinion expressed "that they are Algeæ of a peculiar form and mode of growth," a reference which I think their nature does not warrant.

If we examine the figures of the various species described, given on plates 3 to 5 *a* of the above-cited work, it will be seen that these bodies are more or less elongated tubes, straight or curved, cylindrical or angular, nodose or annulated, and that they have been composed of a thin film or pellicle of network, made up of longitudinal and horizontal threads which cross each other at right angles, thereby cutting the surface of the fossil into rectangular spaces, often with finer threads between the coarser ones. When the specimens, which are casts or impressions in sandstone, are carefully examined, it is found that these threads are not interwoven with each other like basket-work or like the fibres of cloth, nor do they unite with each other, as do vegetable substances; but one set appears to pass on the outside and the other on the inside of the body. The threads composing the network vary in strength, and are in regular sets in both directions, while the entire thickness of the film or substance of the body has been very inconsiderable. In one species, the only one in which the substance filling the space between the cast and the matrix has been observed, it appears to be not more than a twentieth of an inch in thickness, and is ochreous in character. This peculiar net-like structure does not seem to be that of any known plant; nor does their nodose, annulated, cylindrical, or often sharply longitudinally angular form, with nearly perfect corners, indicate a vegetable structure; moreover it is not a feature likely to be retained in a soft yielding vegetable body of such extreme delicacy and large size, while drifting about by the action of water, in becoming imbedded in the sand of a sea-bottom,